ELSEVIER

Journal of Power Sources 63 (1996) 307

JOURNAL OF POWER SOURCES

Author Index of Volume 63

Bae, J.-S., 109
Basumallick, I.N., 271
Bernard, M.C., 247
Bernard, P., 247
Bernardi, D.M., 15
Bevers, D., 193
Bhatt, D.P., 103
Billaud, D., 33
Bloch, D., 71
Boersma, R.J., 215
Brousse, T., 187

Cai, W.-B., 131
Cao, L.X., 137
Cao, X.J., 137
Carpenter, M.K., 15
Cassir, M., 27
Chang, Y., 149
Chatterjee, N., 271
Chen, J., 267
Conway, B.E., 255
Cortes, R., 247
Cui, H., 145
Cui, N., 209

Deen, W.M., 63
De Guibert, A., 235
Devynck, J., 27
Di Stefano, S., 157
Dixit, M., 167
Dou, S.X., 209, 267

Edström, K., 41

Feng, L., 145, 149
Feng, M., 47
Fragnaud, P., 187
Fujimoto, M., 127

Ganesh Kumar, V., 167, 203
Ghanbaja, J., 33
Goodenough, J.B., 47

Hemmes, K., 221
Henn, F.E., 235
Hirata, H., 115
Holeschovsky, U.B., 63
Hori, M., 115
Hua, S., 93
Huang, C.B., 137
Huang, K., 47
Huaquan, Y., 275
Hui, Y., 275
Humbert, B., 33

Jiang, N., 93

Keddam, M., 247
Kida, Y., 127
Kuribayashi, I., 87, 121

Le Cras, F., 71
Liu, H.K., 209, 267
Liu, H.-T., 131
Lu, T., 149
Luan, B., 209

Malinowska, B., 27
Marteau, Ph., 235
Milliken, C., 47
Mohammadi, T., 179
Munichandraiah, N., 167, 203
Muraoka, S., 121

Nagasawa, K., 121
Naji, A., 33
Nishio, K., 127
Noel, M., 1
Nohma, T., 127

Owen, J.R., 41

Pei, W., 275
Pell, W.G., 255
Periasamy, P., 79
Pyun, S.-I., 109

Rahman, S., 141
Ramesh Babu, B., 79
Rao, G.M., 7
Rao, N., 41
Ratnakumar, B.V., 157
Robbins, K., 7
Rogers, R., 193
Rouvet, C., 235

Saito, T., 127
Sammes, N.M., 215
Santhanam, R., 1
Schleich, D.M., 187
Senyarich, S., 247
Shukla, A.K., 167, 203
Siva Kumar, K., 141
Skyllas Kazacos, M., 179
Srinivas Rao, N., 141
Standaert, F., 221
Strobel, P., 71

Takahashi, K., 173
Takahashi, M., 127
Takenouti, H., 247
Tester, J.W., 63
Thaller, L.H., 53
Timmerman, P., 157

Udhayan, R., 103

Vaidyanathan, H., 7
Venkatakrishna Iyer, S., 79
Vishnu Kamath, P., 167
Von Bradke, M., 193

Wertz, J.A., 15
Whitehead, A.H., 41
Will, F.G., 23
Willmann, P., 33
Woudstra, N., 221
Wu, L., 149

Xia, Y., 97
Xiong, Y.P., 137

Yamashita, M., 121
Yoshio, M., 97

Zhong, G., 93
Zhou, W.-F., 131
Zimmerman, A.H., 53

Elsevier Science S.A.

ELSEVIER

Journal of Power Sources 63 (1996) 308–312

JOURNAL OF POWER SOURCES

Subject Index of Volume 63

A.c. impedance
electrochemical behaviour of vanadium bronze $Li_6V_5O_{15}$ cathode in a secondary lithium battery, 93
electrochemical behaviour of spinel $LiMn_2O_4$ as positive electrode in rechargeable lithium cells, 149
Alkaline batteries
structural defects and electrochemical reactivity of β-$Ni(OH)_2$, 247
Aluminium
discharge behaviour of Mg_2Ni-type hydrogen-storage alloy electrodes in 6 M KOH solution by electrochemical impedance spectroscopy, 209
Analytical models
analytical fuel cell modeling, 221
Anionic additives
effect of KOH concentration and anions on the performance of an Ni–H_2 battery positive plate, 7
Anodic lead(II) films
analysis of the oxidation process of anodic Pb(II) films on lead in sulfuric acid solution, 131
Anodic-type inhibitors
possibility and advantages of an anodic-type inhibitor for Zn/MnO_2 dry batteries, 137
Auxiliary electrodes
factors that accelerate the wetting of auxiliary electrodes in sealed lead/acid batteries, 173

Batteries
effect of KOH concentration and anions on the performance of an Ni–H_2 battery positive plate, 7
simulation of temperature-compensated voltage limit curves for aerospace Ni–Cd batteries using a first principles' model, 157
an electrochemically impregnated sintered-nickel electrode, 167
modification of anion-exchange membranes for vanadium redox flow battery applications, 179
quantitative modeling of factors determining Ragone plots for batteries and electrochemical capacitors, 255
electrochemical behavior of Li–Mn spinel electrode material in aqueous solution, 275
Battery cost
impact of lithium abundance and cost on electric vehicle battery applications, 23

Cadmium
simulation of temperature-compensated voltage limit curves for aerospace Ni–Cd batteries using a first principles' model, 157
Carbon
electrochemical behaviour of carbon electrodes in some electrolyte solutions, 127
Carbon paper
examination of the influence of PTFE coating on the properties of carbon paper in polymer electrolyte fuel cells, 193
Cell performance
gas-flow uniformity and cell performance in a molten carbonate fuel cell stack, 115
Cells
an electrochemically impregnated sintered-nickel electrode, 167
Cellulosic separators
characterization of composite cellulosic separators for rechargeable lithium-ion batteries, 87
Cell voltage
analytical fuel cell modeling, 221
Charge/discharge performance
electrochemical behavior of Li–Mn spinel electrode material in aqueous solution, 275
Charge/discharge studies
electrochemical behaviour of Teflon-bonded iron oxide electrodes in alkaline solutions, 79
Charge-transfer resistance
on the corrosion behaviour of magnesium and its alloys using electrochemical techniques, 103
Coating
examination of the influence of PTFE coating on the properties of carbon paper in polymer electrolyte fuel cells, 193
Composite solid electrolytes
effect of plastic deformation on ionic conduction in pure AgI and AgI–Al_2O_3 composite solid electrolytes, 109
Computational modelling
computational analysis of the gas-flow distribution in solid oxide fuel cell stacks, 215
Conducting polymers
a new method for fabricating flexible polymer electrodes and its application to the oxygen–reduction reaction, 271
Corrosion
on the corrosion behaviour of magnesium and its alloys using electrochemical techniques, 103
Current density distribution
analytical fuel cell modeling, 221
Cycle life
electrode impedance parameters and internal resistance of a sealed nickel/metal-hydride cell, 203
Cyclic voltammetry
electrochemical behaviour of spinel $LiMn_2O_4$ as positive electrode in rechargeable lithium cells, 149
Cyclic voltammetry studies
electrochemical behaviour of Teflon-bonded iron oxide electrodes in alkaline solutions, 79

Design
flooded flow fuel cells: a different approach to fuel cell design, 63
Double-layer capacitance
on the corrosion behaviour of magnesium and its alloys using electrochemical techniques, 103

Elsevier Science S.A.

Dry batteries
possibility and advantages of an anodic-type inhibitor for Zn/MnO_2 dry batteries, 137

Electric vehicles
impact of lithium abundance and cost on electric vehicle battery applications, 23
Electrochemical behavior
electrochemical behavior of Li–Mn spinel electrode material in aqueous solution, 275
Electrochemical capacitors
quantitative modeling of factors determining Ragone plots for batteries and electrochemical capacitors, 255
Electrochemical cells
ionic transport and battery characterization studies in $(30–x)Na_2O – xNaF–60B_2O_3–10Tl_2O$ glasses, 141
Electrochemical impedance spectroscopy
discharge behaviour of Mg_2Ni-type hydrogen-storage alloy electrodes in 6 M KOH solution by electrochemical impedance spectroscopy, 209
Electrochemical impregnation
an electrochemically impregnated sintered-nickel electrode, 167
Electrochemical reactivity
structural defects and electrochemical reactivity of β-$Ni(OH)_2$, 247
Electrodes
effect of KOH concentration and anions on the performance of an Ni–H_2 battery positive plate, 7
an electrochemically impregnated sintered-nickel electrode, 167
Electrode wetness
factors that accelerate the wetting of auxiliary electrodes in sealed lead/acid batteries, 173
Electrolytes
electrochemical behaviour of carbon electrodes in some electrolyte solutions, 127
a new solid-state electrolyte: rubbery 'polymer-in-salt' containing $LiN(CF_3SO_2)_2$, 145
Electro-oxidation
analysis of the oxidation process of anodic Pb(II) films on lead in sulfuric acid solution, 131
Electroreduction
electroreduction of graphite in $LiClO_4$–ethylene carbonate electrolyte. Characterization of the passivating layer by transmission electron microscopy and Fourier-transform infrared spectroscopy, 33
Energy-density
quantitative modeling of factors determining Ragone plots for batteries and electrochemical capacitors, 255
Ethylene carbonate
electroreduction of graphite in $LiClO_4$–ethylene carbonate electrolyte. Characterization of the passivating layer by transmission electron microscopy and Fourier-transform infrared spectroscopy, 33

Fractal theory
electrochemical behaviour of spinel $LiMn_2O_4$ as positive electrode in rechargeable lithium cells, 149
Fuel cells
flooded flow fuel cells: a different approach to fuel cell design, 63
analytical fuel cell modeling, 221
a new method for fabricating flexible polymer electrodes and its application to the oxygen–reduction reaction, 271
Fuel utilization
analytical fuel cell modeling, 221

Gas flow
gas-flow uniformity and cell performance in a molten carbonate fuel cell stack, 115
Gas-flow distribution
computational analysis of the gas-flow distribution in solid oxide fuel cell stacks, 215
Gassing
the use of Hg/Hg_2SO_4 reference electrodes in valve-regulated lead/acid cells, 15
Graphite
electroreduction of graphite in $LiClO_4$–ethylene carbonate electrolyte. Characterization of the passivating layer by transmission electron microscopy and Fourier-transform infrared spectroscopy, 33
in situ X-ray diffraction studies of a graphite-based Li-ion battery negative electrode, 41
electrochemical behaviour of carbon electrodes in some electrolyte solutions, 127
Graphite electrodes
influence of polymeric binder on the stability and intercalation/deintercalation behaviour of graphite electrodes in non-aqueous solvents, 1

Hg/Hg_2SO_4 reference electrodes
the use of Hg/Hg_2SO_4 reference electrodes in valve-regulated lead/acid cells, 15
Hydride electrodes
effect of partial substitution of La with Ce, Pr and Nd on the properties of $LaNi_5$-based alloy electrodes, 267
Hydrogen absorption
factors that accelerate the wetting of auxiliary electrodes in sealed lead/acid batteries, 173
Hydrogen evolution
hydrogen and oxygen evolution in sealed lead/acid 2 V cells. In situ gas measurement by Raman spectroscopy, 235
Hydrogen-storage alloys
discharge behaviour of Mg_2Ni-type hydrogen-storage alloy electrodes in 6 M KOH solution by electrochemical impedance spectroscopy, 209

Impedance
electrode impedance parameters and internal resistance of a sealed nickel/metal-hydride cell, 203
Intercalation
influence of polymeric binder on the stability and intercalation/deintercalation behaviour of graphite electrodes in non-aqueous solvents, 1
in situ X-ray diffraction studies of a graphite-based Li-ion battery negative electrode, 41
Ion conductivity
ion conductivity of polymer electrolytes derived from poly(*p*-phenylene terephthalamide), 121
Ion-exchange membranes
modification of anion-exchange membranes for vanadium redox flow battery applications, 179
Ionic transport
ionic transport and battery characterization studies in $(30–x)Na_2O – xNaF–60B_2O_3–10Tl_2O$ glasses, 141
Iron oxide electrodes
electrochemical behaviour of Teflon-bonded iron oxide electrodes in alkaline solutions, 79

Lanthanum gallate
fuel cells with doped lanthanum gallate electrolyte, 47
Lanthanum–nickel-based alloy
effect of partial substitution of La with Ce, Pr and Nd on the properties of $LaNi_5$-based alloy electrodes, 267
Lead/acid batteries
factors that accelerate the wetting of auxiliary electrodes in sealed lead/acid batteries, 173

hydrogen and oxygen evolution in sealed lead/acid 2 V cells. In situ gas measurement by Raman spectroscopy, 235
Lead/sulfuric acid system
analysis of the oxidation process of anodic Pb(II) films on lead in sulfuric acid solution, 131
Lithium
impact of lithium abundance and cost on electric vehicle battery applications, 23
in situ X-ray diffraction studies of a graphite-based Li-ion battery negative electrode, 41
studies on the Li–Mn–O spinel system (obtained from melt-impregnation method) as positive electrodes for 4 V lithium batteries. Part III. Characterization of capacity and rechargeability, 97
electrochemical behaviour of carbon electrodes in some electrolyte solutions, 127
Lithium batteries
low-temperature lithium–manganese oxide cathode materials for polymer batteries, 71
Lithium cells
electrochemical behaviour of spinel $LiMn_2O_4$ as positive electrode in rechargeable lithium cells, 149
Lithium cobalt oxide
characterization of sprayed and sputter deposited $LiCoO_2$ thin films for rechargeable microbatteries, 187
Lithium compounds
electrochemical behavior of Li–Mn spinel electrode material in aqueous solution, 275
Lithium insertion
alkali insertion within NiO/Ni electrode in contact with molten Li_2CO_3–K_2CO_3 and Li_2CO_3–Na_2CO_3–K_2CO_3 at 650 °C, 27
Lithium insertion reaction
electrochemical behaviour of vanadium bronze $Li_6V_5O_{15}$ cathode in a secondary lithium battery, 93
Lithium-ion batteries
studies on the Li–Mn–O spinel system (obtained from melt-impregnation method) as positive electrodes for 4 V lithium batteries. Part III. Characterization of capacity and rechargeability, 97
ion conductivity of polymer electrolytes derived from poly(*p*-phenylene terephthalamide), 121
electrochemical behaviour of carbon electrodes in some electrolyte solutions, 127
Lithium-ion cells
characterization of composite cellulosic separators for rechargeable lithium-ion batteries, 87
Lithium potassium carbonate
alkali insertion within NiO/Ni electrode in contact with molten Li_2CO_3–K_2CO_3 and Li_2CO_3–Na_2CO_3–K_2CO_3 at 650 °C, 27
Lithium reserves
impact of lithium abundance and cost on electric vehicle battery applications, 23
Lithium sodium potassium carbonate
alkali insertion within NiO/Ni electrode in contact with molten Li_2CO_3–K_2CO_3 and Li_2CO_3–Na_2CO_3–K_2CO_3 at 650 °C, 27

Magnesium alloys
discharge behaviour of Mg_2Ni-type hydrogen-storage alloy electrodes in 6 M KOH solution by electrochemical impedance spectroscopy, 209
Magnesium passivation potential
on the corrosion behaviour of magnesium and its alloys using electrochemical techniques, 103
Manganese dioxide
studies on the Li–Mn–O spinel system (obtained from melt-impregnation method) as positive electrodes for 4 V lithium batteries. Part III. Characterization of capacity and rechargeability, 97
Manganese oxide
electrochemical behavior of Li–Mn spinel electrode material in aqueous solution, 275
Manganese oxide spinels
low-temperature lithium–manganese oxide cathode materials for polymer batteries, 71
Mathematical models
simulation of temperature-compensated voltage limit curves for aerospace Ni–Cd batteries using a first principles' model, 157
Molten carbonate fuel cells
gas-flow uniformity and cell performance in a molten carbonate fuel cell stack, 115
alkali insertion within NiO/Ni electrode in contact with molten Li_2CO_3–K_2CO_3 and Li_2CO_3–Na_2CO_3–K_2CO_3 at 650 °C, 27

Nickel
effect of KOH concentration and anions on the performance of an Ni–H_2 battery positive plate, 7
simulation of temperature-compensated voltage limit curves for aerospace Ni–Cd batteries using a first principles' model, 157
Nickel/cadmium cells
electrolyte management considerations in modern nickel/hydrogen and nickel/cadmium cell and battery designs, 53
Nickel/hydrogen cells
electrolyte management considerations in modern nickel/hydrogen and nickel/cadmium cell and battery designs, 53
Nickel/metal-hydride cells
electrode impedance parameters and internal resistance of a sealed nickel/metal-hydride cell, 203
Nickel hydroxide
an electrochemically impregnated sintered-nickel electrode, 167
structural defects and electrochemical reactivity of β-$Ni(OH)_2$, 247
Non-mercurization
possibility and advantages of an anodic-type inhibitor for Zn/MnO_2 dry batteries, 137
Nyquist plots
on the corrosion behaviour of magnesium and its alloys using electrochemical techniques, 103

Open-circuit decay
electrochemical behaviour of Teflon-bonded iron oxide electrodes in alkaline solutions, 79
Overpotential
fuel cells with doped lanthanum gallate electrolyte, 47
Oxide glasses
ionic transport and battery characterization studies in $(30–x)$-$Na_2O - xNaF–60B_2O_3–10Tl_2O$ glasses, 141
Oxygen–reduction reaction
a new method for fabricating flexible polymer electrodes and its application to the oxygen–reduction reaction, 271
Oxygen revolution
hydrogen and oxygen evolution in sealed lead/acid 2 V cells. In situ gas measurement by Raman spectroscopy, 235

Phase
in situ X-ray diffraction studies of a graphite-based Li-ion battery negative electrode, 41
Phase diagram
a new solid-state electrolyte: rubbery 'polymer-in-salt' containing $LiN(CF_3SO_2)_2$, 145
Pitch fibres
electroreduction of graphite in $LiClO_4$–ethylene carbonate electrolyte. Characterization of the passivating layer by transmission electron microscopy and Fourier-transform infrared spectroscopy, 33
Plastic deformation
effect of plastic deformation on ionic conduction in pure AgI and AgI–Al_2O_3 composite solid electrolytes, 109

Polymer electrolyte fuel cells
examination of the influence of PTFE coating on the properties of carbon paper in polymer electrolyte fuel cells, 193
Polymer electrolytes
ion conductivity of polymer electrolytes derived from poly(*p*-phenylene terephthalamide), 121
Polymeric binder effect
influence of polymeric binder on the stability and intercalation/deintercalation behaviour of graphite electrodes in non-aqueous solvents, 1
Polymers
a new solid-state electrolyte: rubbery 'polymer-in-salt' containing $LiN(CF_3SO_2)_2$, 145
Positive plates
effect of KOH concentration and anions on the performance of an Ni–H_2 battery positive plate, 7
Potassium hydroxide
effect of KOH concentration and anions on the performance of an Ni–H_2 battery positive plate, 7
electrolyte management considerations in modern nickel/hydrogen and nickel/cadmium cell and battery designs, 53
Potassium insertion
alkali insertion within NiO/Ni electrode in contact with molten Li_2CO_3–K_2CO_3 and Li_2CO_3–Na_2CO_3–K_2CO_3 at 650 °C, 27
Power density
fuel cells with doped lanthanum gallate electrolyte, 47
quantitative modeling of factors determining Ragone plots for batteries and electrochemical capacitors, 255

Rechargeable batteries
characterization of composite cellulosic separators for rechargeable lithium-ion batteries, 87
Rechargeable lithium batteries
impact of lithium abundance and cost on electric vehicle battery applications, 23
Rechargeable microbatteries
characterization of sprayed and sputter deposited $LiCoO_2$ thin films for rechargeable microbatteries, 187

Secondary lithium batteries
electrochemical behaviour of vanadium bronze $Li_6V_5O_{15}$ cathode in a secondary lithium battery, 93
Short-circuit current
ionic transport and battery characterization studies in $(30–x)$-$Na_2O-xNaF–60B_2O_3–10Tl_2O$ glasses, 141
Silver epoxy polymers
a new method for fabricating flexible polymer electrodes and its application to the oxygen–reduction reaction, 271
Silver iodide
effect of plastic deformation on ionic conduction in pure AgI and AgI–Al_2O_3 composite solid electrolytes, 109
Simulation
gas-flow uniformity and cell performance in a molten carbonate fuel cell stack, 115
Sodium insertion
alkali insertion within NiO/Ni electrode in contact with molten Li_2CO_3–K_2CO_3 and Li_2CO_3–Na_2CO_3–K_2CO_3 at 650 °C, 27
Solid oxide fuel cells
fuel cells with doped lanthanum gallate electrolyte, 47
computational analysis of the gas-flow distribution in solid oxide fuel cell stacks, 215
Solid polymer electrolytes
low-temperature lithium–manganese oxide cathode materials for polymer batteries, 71
Solid-state batteries
effect of plastic deformation on ionic conduction in pure AgI and AgI–Al_2O_3 composite solid electrolytes, 109
Space craft
a new method for fabricating flexible polymer electrodes and its application to the oxygen–reduction reaction, 271
Specific energy
ionic transport and battery characterization studies in $(30–x)$-$Na_2O-xNaF–60B_2O_3–10Tl_2O$ glasses, 141
Spinel
studies on the Li–Mn–O spinel system (obtained from melt-impregnation method) as positive electrodes for 4 V lithium batteries. Part III. Characterization of capacity and rechargeability, 97
Spinel lithium–manganese oxides
electrochemical behaviour of spinel $LiMn_2O_4$ as positive electrode in rechargeable lithium cells, 149
Stack
computational analysis of the gas-flow distribution in solid oxide fuel cell stacks, 215
State-of-charge
electrode impedance parameters and internal resistance of a sealed nickel/metal-hydride cell, 203
Structural defects
structural defects and electrochemical reactivity of β-$Ni(OH)_2$, 247
Substitution
effect of partial substitution of La with Ce, Pr and Nd on the properties of $LaNi_5$-based alloy electrodes, 267
Sulfonation
modification of anion-exchange membranes for vanadium redox flow battery applications, 179

Tafel slope
on the corrosion behaviour of magnesium and its alloys using electrochemical techniques, 103
Temperature
simulation of temperature-compensated voltage limit curves for aerospace Ni–Cd batteries using a first principles' model, 157
Thin films
characterization of sprayed and sputter deposited $LiCoO_2$ thin films for rechargeable microbatteries, 187
Transference numbers
ionic transport and battery characterization studies in $(30–x)$-$Na_2O-xNaF–60B_2O_3–10Tl_2O$ glasses, 141
Transient time
electrochemical behaviour of Teflon-bonded iron oxide electrodes in alkaline solutions, 79

Valve-regulated lead/acid batteries
the use of Hg/Hg_2SO_4 reference electrodes in valve-regulated lead/acid cells, 15
Vanadium bronze
electrochemical behaviour of vanadium bronze $Li_6V_5O_{15}$ cathode in a secondary lithium battery, 93
Vanadium redox batteries
modification of anion-exchange membranes for vanadium redox flow battery applications, 179
Voltage limits
simulation of temperature-compensated voltage limit curves for aerospace Ni–Cd batteries using a first principles' model, 157
Voltage–pH relationship
electrochemical behavior of Li–Mn spinel electrode material in aqueous solution, 275

Water transfer
modification of anion-exchange membranes for vanadium redox flow battery applications, 179

X-ray diffraction
in situ X-ray diffraction studies of a graphite-based Li-ion battery negative electrode, 41
electrochemical behaviour of vanadium bronze $Li_6V_5O_{15}$ cathode in a secondary lithium battery, 93

Yttrium
discharge behaviour of Mg_2Ni-type hydrogen-storage alloy electrodes in 6 M KOH solution by electrochemical impedance spectroscopy, 209

Zinc corrosion
possibility and advantages of an anodic-type inhibitor for Zn/MnO_2 dry batteries, 137